

Standards Development Strategy

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What is a Standard?

- Test and Measurement Standard
 - e.g., gram, meter and how you measure it
- Product, Process, and Management standards (aka Documentary or Normative standards)
 - establish the *fitness of a product for a particular use*
 - set specifications for the *function and operation of a device or system*
 - process or management standards, e.g., ISO 9000

Standard Infrastructure

"The nice thing about standards is that there are so many to choose from."

Kinds of Standards

- Formal standards (~400 US-based)
 - ANSI-accredited
 - ISO
 - Treaty organizations
- Open Consortia
- Closed Consortia
- Some people in the basement
- Proprietary “standards”

Government Role in Standards

- Old Role: Brooks Act (1965)
- New Role:
 - National Technology Transfer and Advancement Act (1996)
 - Clinger/Cohen (1996)

We only issue standards for the government when there is a compelling governmental need (normally security).

NIST Role in Standards

- NIST assists industry groups as they develop IT standards.
 - Provide testbeds
 - Technical expertise
 - Test methods
- Sector-focused Activities
 - MatML
 - STEP

Why are Standards Good?

- Promote market efficiency and expansion
- Foster trade
- Encourage competition and lower barriers to market entry
- Diffuse new technologies.
- Protect consumers against unsafe or substandard products.
- And--especially in information technology -
 - enable interoperability among products.

Why are Standards Bad?

When standards work poorly, they can:

- Raise transaction costs and barriers to trade
- Constrain innovation and entrench inferior technologies
- And hinder the development of interoperable systems

Success Stories

- DES
- SQL
- IP
- HTML/HTTP
- XML
- Java
- ActiveX
- Linux
- Computer Forensics Tools

Failures

- OSI Networking
- SGML
- OMG CORBA
- Ada
- ISDN
- Posix

Not Sure

- IPv6
- RDF/OWL
- ITV

Lessons Learned

- There should be a market incentive

A Standard is Like a Product

- Most recent successful standards started small
- The realities of standards development should be understood up front

Issues for Combi Standards

Market Incentive

- Who will build them?
- Who will use them?
- Will they enable someone to make/save money?

Issues for Combi Standards

Start Small

- What kind of standards should be developed?
- What are the goals that the standards are to achieve?
- Will the standards allow for future innovation?
- Can the standards be developed in a timely manner?

Issues for Combi Standards Development Realities

- Who has the expertise to write them?
- Who has the motivation to write them?
- And who will update/maintain the standards?